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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/642,513

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EXAMINER

MATTHEWS, WILLIAM H

ART UNIT

PAPER NUMBER

3774

MAIL DATE

DELIVERY MODE

06/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/642,513	Applicant(s) OSBORNE ET AL.	
	Examiner William H. Matthews (Howie)	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-64 is/are pending in the application.
- 4a) Of the above claim(s) 47,51,52,54-57,59,63 and 64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45,46,48-50,53,58,60-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

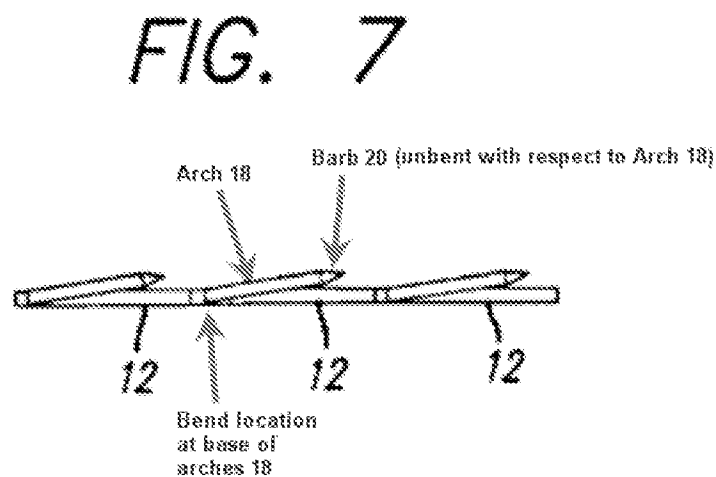
DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 45,46,48-50,53,58, and 60-62 have been considered but are not persuasive.

Applicant argues the rejection fails to address "in a predetermined direction". This is not understood as Anderson desires the barbs to point outwardly in response to a bending action, and outwardly is a direction.

Applicant further states the Examiner disregards the Board's decision. This is not correct. The Board determined that Anderson did not necessarily disclose the bending location was not at the barb because Anderson's disclosure contains a contradiction. The specification describes the barbs being bent outward while Figure 7 shows the "bent" state, and the barbs 20 are not bent with respect to the arches 18:



Thus the newly presented rejection suggests the obviousness to produce the stent shown in Anderson figure 7 wherein the removed material (to cause bending) would be at the base of the arches such that the bending act bends the arches, which in turn redirects the distalmost barbs to point outward as well. Boatman teaches it is well known in the stent art to control bending locations to enhance fatigue life.

Applicant has not explained how Figure 7 shows “a bent barb”. Furthermore, Applicant has not shown that Figure 7 would not reasonably suggest a barb that is unbent with respect to Arch 18, especially in view of the knowledge and desire in the art to enhance fatigue life, as taught in Boatman. Examiner maintains one of ordinary skill would be motivated to not bend the barb with respect to arch 18 because such bending would reduce the strength of the connection and could lead to a barb breaking off and entering the bloodstream.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45,46,48-50,53,58, and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. USPN 5,800,526 (“Anderson”) in view of Boatman et al. US PUB 2001/0027339 (“Boatman”).

Anderson discloses a stent comprising barbs attached to struts in figures 1-7, wherein the stent is machined from a flat sheet of metal via laser cutting or chemical etching. Figures 4-5 show the stent in the unexpanded form with barbs 20 at the apex of each arch 18. The arch 18 comprises a bend and two struts as claimed. Figures 6-7 show the stent in the expanded state such that arches 18 bend outwardly, thereby directing the barbs to face outwardly at an angle generally transverse or acute to the longitudinal axis:

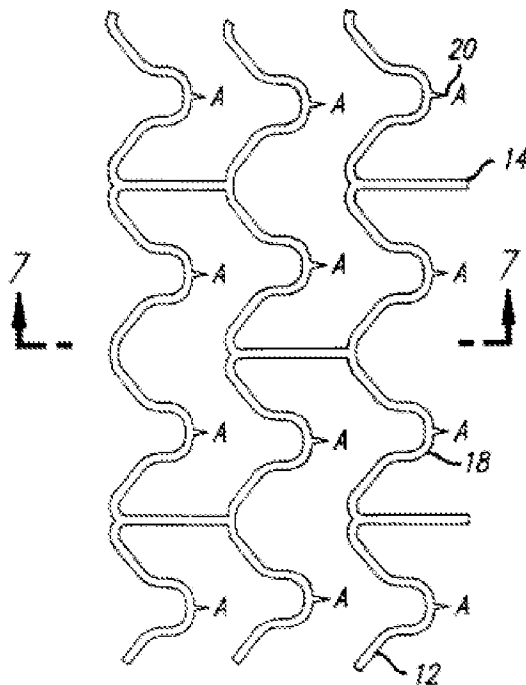


FIG. 6

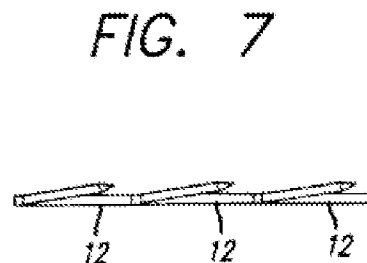


FIG. 7

Column 6, lines 41-58 further describe outwardly bent arches 18 with barbs 20 disposed thereon. Anderson thus appears to teach barbs unbent with respect to the stent struts. Anderson further teaches stent material is removed at selective locations near the barbs to yield desired bending of the stent shown in figures 1-7 (see column 9,

lines 16-26). However, Anderson fails to explicitly disclose that only the arches 18 bend, and the barbs do not bend.

Boatman teaches stents are preferably designed to provide bending over only certain curvilinear struts while other sections of the stent do not deform in order to enhance the fatigue life of the stent. See paragraphs 0024, 0081, and 0084. Furthermore, it would have been apparent to one of ordinary skill in the art to provide the greatest fatigue life at the thinner barb junctions of a stent in order to prevent fracture and release of the barbs into the bloodstream.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to ensure the barbs in Anderson are free of unnecessary bending stresses by removing material only along the thicker curvilinear struts 12 such that the arches 18 bend outwardly to direct the barbs 20 to face outwardly (as is shown in figure 7 of Anderson). The motivation being to enhance the stent's fatigue life as taught by Boatman, and to reduce the possibility of fracture at the barb-strut junction.

With further respect to claims 53, 58 and 60-62, Anderson describe a graft in connection with the stent meeting the limitation of a stent affixed to a substantially cannular body (claim 58) or endoluminal prosthesis (claim 53).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Matthews (Howie) whose telephone number is 571-272-4753. The examiner can normally be reached on Monday-Friday 10-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM H. MATTHEWS/
Primary Examiner, Art Unit 3774